

Changing the owner of each group :

```
[[root@6b7323a54afb tuwaiq]# chown salwa:Accounting Accounting
[[root@6b7323a54afb tuwaiq]# chown ahmed:Engineering Engineering
[[root@6b7323a54afb tuwaiq]# chown hazem:HR HR
[[root@6b7323a54afb tuwaiq]# ls -l
total 12
drwxr-xr-x 2 salwa Accounting 4096 Aug 27 11:20 Accounting
drwxr-xr-x 2 ahmed Engineering 4096 Aug 27 11:19 Engineering
drwxr-xr-x 2 hazem HR 4096 Aug 27 11:25 HR
[[root@6b7323a54afb tuwaiq]#
```

Make Anas the CEO owner to all tuwaiq :

```
[[root@6b7323a54afb tuwaiq]# cd ..
[[root@6b7323a54afb /]# chown anas tuwaiq
[[root@6b7323a54afb /]# ls -l
total 92
lrwxrwxrwx 1 root root 7 Jun 22 2021 bin -> usr/bin
dr-xr-xr-x 4 root root 4096 Aug 20 23:19 boot
-rw-r--r-- 1 root root 168 Aug 22 14:31 calender.txt
-rw-r--r-- 1 root root 168 Aug 22 11:40 Calender.txt
drwxr-xr-x 5 root root 360 Aug 26 14:22 dev
drwxr-xr-x 1 root root 4096 Aug 27 11:05 etc
drwxr-xr-x 1 root root 4096 Aug 27 10:52 home
lrwxrwxrwx 1 root root 7 Jun 22 2021 lib -> usr/lib
lrwxrwxrwx 1 root root 9 Jun 22 2021 lib64 -> usr/lib64
-rw-r--r-- 1 root root 30 Aug 22 11:46 logs.txt
-rw-r--r-- 1 root root 30 Aug 22 14:32 log.txt
drwx----- 2 root root 4096 Sep 15 2021 lost+found
drwxr-xr-x 1 root root 4096 Jun 22 2021 media
drwxr-xr-x 1 root root 4096 Jun 22 2021 mnt
drwxr-xr-x 2 root root 4096 Aug 26 14:34 mydir
drwxr-xr-x 1 root root 4096 Aug 23 11:15 opt
dr-xr-xr-x 202 root root 0 Aug 26 14:22 proc
dr-xr-x--- 1 root root 4096 Aug 27 10:39 root
drwxr-xr-x 1 root root 4096 Aug 23 08:45 run
lrwxrwxrwx 1 root root 8 Jun 22 2021/sbin -> usr/sbin
drwxr-xr-x 1 root root 4096 Jun 22 2021 srv
dr-xr-xr-x 13 root root 0 Aug 26 14:22 sys
drwxrwxrwt 1 root root 4096 Aug 26 16:27 tmp
drwxr-xr-x 5 anas root 4096 Aug 27 11:27 tuwaiq
drwxr-xr-x 1 root root 4096 Aug 20 23:18 usr
drwxr-xr-x 1 root root 4096 Aug 20 23:18 var
[[root@6b7323a54afb /]#
```

Determine the premotions option :

```
[[root@6b7323a54afb tuwaiq]# chmod -R 400 HR
[[root@6b7323a54afb tuwaiq]# chmod -R 470 HR
[[root@6b7323a54afb tuwaiq]# chmod -R 470 Engineering
[[root@6b7323a54afb tuwaiq]# chmod -R 470 Accounting
[[root@6b7323a54afb tuwaiq]# ls -lar
total 20
dr--rwx--- 2 anas HR          4096 Aug 27 11:25 HR
dr--rwx--- 2 anas Engineering 4096 Aug 27 11:19 Engineering
dr--rwx--- 2 anas Accounting  4096 Aug 27 11:20 Accounting
drwxr-xr-x 1 root root        4096 Aug 27 10:21 ..
drwxr-xr-x 5 anas root        4096 Aug 27 11:27 .
[[root@6b7323a54afb tuwaiq]#
```

Results after using chmod :

```
./Accounting:
total 8
dr--rwx--- 2 anas Accounting 4096 Aug 27 11:20 .
drwxr-xr-x 5 anas root      4096 Aug 27 11:27 ..
-r--rwx--- 1 anas Accounting    0 Aug 27 10:30 acc_1.txt
-r--rwx--- 1 anas Accounting    0 Aug 27 10:30 acc_2.txt
-r--rwx--- 1 anas Accounting    0 Aug 27 10:30 acc_3.txt
-r--rwx--- 1 anas Accounting    0 Aug 27 10:30 acc_4.txt
-r--rwx--- 1 anas Accounting    0 Aug 27 10:30 acc_5.txt

./Engineering:
total 8
dr--rwx--- 2 anas Engineering 4096 Aug 27 11:19 .
drwxr-xr-x 5 anas root      4096 Aug 27 11:27 ..
-r--rwx--- 1 anas Engineering    0 Aug 27 10:30 eng_1.txt
-r--rwx--- 1 anas Engineering    0 Aug 27 10:30 eng_2.txt
-r--rwx--- 1 anas Engineering    0 Aug 27 10:30 eng_3.txt
-r--rwx--- 1 anas Engineering    0 Aug 27 10:30 eng_4.txt
-r--rwx--- 1 anas Engineering    0 Aug 27 10:30 eng_5.txt

./HR:
total 8
dr--rwx--- 2 anas HR    4096 Aug 27 11:25 .
drwxr-xr-x 5 anas root 4096 Aug 27 11:27 ..
-r--rwx--- 1 anas HR      0 Aug 27 10:30 HR_1.txt
-r--rwx--- 1 anas HR      0 Aug 27 10:30 HR_2.txt
-r--rwx--- 1 anas HR      0 Aug 27 10:30 HR_3.txt
-r--rwx--- 1 anas HR      0 Aug 27 10:30 HR_4.txt
-r--rwx--- 1 anas HR      0 Aug 27 10:30 HR_5.txt
```

```
./tuwaiq:
total 12
dr--rwx--- 2 anas Accounting 4096 Aug 27 11:20 Accounting
dr--rwx--- 2 anas Engineering 4096 Aug 27 11:19 Engineering
dr--rwx--- 2 anas HR          4096 Aug 27 11:25 HR
```

```
./tuwaiq/Accounting:
total 0
-r--rwx--- 1 anas Accounting 0 Aug 27 10:30 acc_1.txt
-r--rwx--- 1 anas Accounting 0 Aug 27 10:30 acc_2.txt
-r--rwx--- 1 anas Accounting 0 Aug 27 10:30 acc_3.txt
-r--rwx--- 1 anas Accounting 0 Aug 27 10:30 acc_4.txt
-r--rwx--- 1 anas Accounting 0 Aug 27 10:30 acc_5.txt
```

```
./tuwaiq/Engineering:
total 0
-r--rwx--- 1 anas Engineering 0 Aug 27 10:30 eng_1.txt
-r--rwx--- 1 anas Engineering 0 Aug 27 10:30 eng_2.txt
-r--rwx--- 1 anas Engineering 0 Aug 27 10:30 eng_3.txt
-r--rwx--- 1 anas Engineering 0 Aug 27 10:30 eng_4.txt
-r--rwx--- 1 anas Engineering 0 Aug 27 10:30 eng_5.txt
```

```
./tuwaiq/HR:
total 0
-r--rwx--- 1 anas HR 0 Aug 27 10:30 HR_1.txt
-r--rwx--- 1 anas HR 0 Aug 27 10:30 HR_2.txt
-r--rwx--- 1 anas HR 0 Aug 27 10:30 HR_3.txt
-r--rwx--- 1 anas HR 0 Aug 27 10:30 HR_4.txt
-r--rwx--- 1 anas HR 0 Aug 27 10:30 HR_5.txt
[root@6b7323a54afb tmp]#
```

Creating backup file + Zipping the tuwaiq folder and moving it to backups :

```
[[root@6b7323a54afb tmp]# mkdir backups
[[root@6b7323a54afb tmp]# ls
backups  ks-script-4luisyla  ks-script-o23i7rc2  ks-script-x6ei4wuu
[[root@6b7323a54afb tmp]# pwd
/tmp
[[root@6b7323a54afb tmp]# cd backups
[[root@6b7323a54afb backups]# pwd
/tmp/backups
[[root@6b7323a54afb backups]# cd ..
[[root@6b7323a54afb tmp]# cd ..
[[root@6b7323a54afb /]# zip tuwaiq.zip tuwaiq
  adding: tuwaiq/ (stored 0%)
[[root@6b7323a54afb /]# mv tuwaiq.zip tmp
[[root@6b7323a54afb /]# cd tmp
[[root@6b7323a54afb tmp]# mv tuwaiq.zip tmp backups
mv: cannot stat 'tmp': No such file or directory
[[root@6b7323a54afb tmp]# zip tuwaiq.zip tuwaiq
  zip warning: name not matched: tuwaiq
```

Final Solutions :

```
[[root@6b7323a54afb /]# cd /tmp/backups
[[root@6b7323a54afb backups]# ls
tuwaiq.zip
[[root@6b7323a54afb backups]# unzip tuwaiq.zip
Archive:  tuwaiq.zip
  creating: tuwaiq/
[[root@6b7323a54afb backups]# ls
tuwaiq  tuwaiq.zip
[[root@6b7323a54afb backups]# cd tuwaiq
[[root@6b7323a54afb tuwaiq]# ls -laR
.:
total 8
drwxr-xr-x 2 root root 4096 Aug 27 11:27 .
drwxr-xr-x 3 root root 4096 Aug 27 17:21 ..
[[root@6b7323a54afb tuwaiq]#
```